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BARRF

XP-002295133

10/529294
JC17 Rec'd PCT/PTO 25 MAR 2005

AN - 1983-62442K [26]

CPY - NIDI-N

DC - M22 P53

FS - CPI;GMPI

IC - B22F5/00 ; C22C33/02

MC - M22-H03B M22-H03G

PA - (NIDI-N) NIPPON DIA CLEVITE CO

PN - JP58084905 A 19830521 DW198326 004pp

PR - JP19810182107 19811113

XA - C1983-060595

XIC - B22F-005/00 ; C22C-033/02

XP - N1983-112136

AB - J58084905 Austenitic or ferritic stainless steel powder as a base is mixed with Cr-contg. Ni-based alloy powder having an m.pt. lower than that of the base. The powdery mixture is then sintered in a vacuum or non-oxidising atmosphere at a temp. lower than the m.pt. of the base but above the m.pt. of the Ni-based alloy powder to alloy the components together.

- In further detail, the Ni-based alloy pref. has the composition 6-20% Cr, 1.0-4.0% B, 3.0-10.5% Si, up to 0.15% C and the balance Ni. Its partic size is pref. below 200 mesh. This Ni-based alloy powder is added to the base at a ratio of 15-20%. The mixture is sintered at 1200-1300 deg.C in H₂, He etc.

- The porous sintered body is useful as a filter or a sound absorber excellent in corrosion resistance. When the base powder together with the Ni-based alloy powder is loosely poured in a vessel, each particle of the base powder does not come in contact with the other. The small-sized Ni-based alloy particles adhere to the surface of the base particles. When the mixt. is sintered, the Ni alloy particles exist as a liquid phase between the steel particles and form a skeletal structure. Since the Ni-based alloy contains Cr, Si, B, etc., the surface of the steel particles are improved in hardness and corrosion resistance by the alloying reaction.

IW - COMPOSITE SINTER FILTER SOUND ABSORB MEDIUM MADE AUSTENITE FERRITE STAINLESS STEEL POWDER MIX CHROMIUM CONTAIN NICKEL ALLOY

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NC - 001

OPD - 1981-11-13

ORD - 1983-05-21

PAW - (NIDI-N) NIPPON DIA CLEVITE CO

TI - Composite sintered filter or sound absorbing medium - is made from austenitic or ferritic stainless steel powder mixed with chromium-contg. nickel alloy